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is less than 10%; and

- B1 (ii) immediately following step (i), annealing the perforated strip at a temperature below the melting point of said metal or metal-alloy to yield a recrystallized microstructure in deformed portions of the strip.

B2 13. (Amended) A method according to claim 1, further comprising the step, following step (ii), of quenching said perforated strip.

Please add the following new claims to the application:

B3 18. (New) A method of manufacturing a metallic current collector for use in an electrochemical or galvanic cell, comprising the steps of:

(i) perforating a solid, flat metal strip using a continuous process that results in deformation of the strip by less than 10% when expressed by the ratio of the strip thickness before and after perforation; and

(ii) annealing the perforated strip at a temperature below the melting point of said metal or metal-alloy.

19. (New) A method of manufacturing a lead or lead alloy current collector for use in an electrochemical or galvanic cell, comprising the steps of:

(i) perforating a solid, flat metal strip using a continuous process that results in deformation of the strip by less than 10% when expressed by the ratio of the strip thickness before and after perforation; and

(ii) annealing the perforated strip at a temperature between 100°C and 300°C.

20. (New) In a process for producing a metallic current collector in the form of a grid or mesh for use in an electrochemical or galvanic cell which comprises the steps of:

- a) making a deformed strip by perforating a solid flat metal strip using a continuous process that results in deformation of the strip at least locally near the perforations whereby said strip is formed into a grid or mesh configuration having a deformed portion, said deformation, expressed by the ratio of the strip thickness before and after perforation, being less than 10%;
- b) pasting the deformed strip with an electrochemically active material;
- c) flash curing the paste; and then
- d) cutting said pasted deformed strip into individual current collectors;

wherein the improvement comprises:

an annealing step wherein the deformed strip is annealed prior to pasting by heating the metal of said deformed strip to cause the formation of a recrystallized microstructure in said deformed portion; said heat treatment being performed at a temperature below the melting point of said metal for up to 20 minutes.

21. (New) A method according to claim 20, wherein said recrystallized microstructure contains a minimum of 50% special grain boundaries.

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22. (New) A method according to claim 20, wherein said continuous process is a process of reciprocating expansion.
23. (New) A method according to claim 20, wherein said continuous process is a process of rotary expansion.
24. (New) A method according to claim 20, wherein said continuous process comprises punching perforations through said metal strip.
25. (New) A method according to claim 20, wherein said metal is selected from lead or a lead alloy.
26. (New) A method according to claim 21, wherein said metal is selected from lead or a lead alloy.
27. (New) A method according to claim 25, wherein the alloying element in said lead alloy is selected from the group consisting of Ca, Sr, Ba, Sb, As, Al, Sn, Ag and Bi or combinations thereof.
28. (New) A method according to claim 26, wherein the alloying element in said lead alloy is selected from the group consisting of Ca, Sr, Ba, Sb, As, Al, Sn, Ag and Bi or combinations thereof.
29. (New) A method according to claim 27, wherein said step of annealing carried out at a temperature between 100 and 300°C for a duration of between 10 seconds and 20 minutes.

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30. (New) A method according to claim 28, wherein said step of annealing carried out at a temperature between 100 and 300°C for a duration of between 10 seconds and 20 minutes.

31. (New) A method according to claim 28 or claim 29, wherein said metallic current collector is a lead-acid battery grid.

32. (New) A method according to claim 20, further comprising quenching said deformed strip after said annealing step.

33. (New) A method according to claim 25 or claim 26, further comprising cooling the deformed strip to a temperature below 80°C after said annealing step.

34. (New) A method according to claim 20, wherein a strip accumulator is used for feeding said solid, flat metal strip into a perforator in step a) to eliminate or reduce stoppages in said continuous process.

35. (New) A method according to claim 20, wherein said solid, flat metal strip is heat-treated prior to carrying out step a).

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